DOCUMENT RESUME

ED 075 825 24 CS 200 483

TITLE	Communication Systems, Unit II: Language Curriculum, Level D [Grade Four]; Teacher's Guide.
INSTITUTION	Oregon Univ., Eugene. Oregon Elementary English Project.
SPONS AGENCY	Office of Education (DHEW), Washington, D.C. Bureau of Research.
BUREAU NO	BR-8-0143
PUB DATE	71
CONTRACT	OEC-0-8-080143-3701
NOTE	40p.
EDRS PRICE	MF-$0.65 HC-$3.29
DESCRIPTORS	*Communication (Thought Transfer); Curriculum Guides; *English Curriculum; *Grade 3; *Grade 4; Language Arts; Language Programs; *Teaching Guides; Verbal Communication
IDENTIFIERS	*Oregon Elementary English Project

ABSTRACT

Developed by the Oregon Elementary English Project for grades three and four, this second of two units on communication systems begins with a lesson which reinforces the concept that in order to communicate we must all have the same meaning for the signals used. Lessons 1 through 3 deal with the various kinds of communication signals used by humans; lesson 4 develops some understanding of what is meant by a communication system; lesson 5 helps students discover that human language is a communication system that uses words; lesson 6 emphasizes the systematic nature of human language; lesson 7 introduces the concept that human language is an unlimited system; and lesson 8 reviews the various characteristics of human language. Each lesson is accompanied by a statement of its purpose, suggested materials and procedures, possible extensions to the lesson, and various student exercises. A page that can be used on the overhead projector for lesson 5 is provided in a supplementary material packet. (For Unit I of this two-part Communication Systems unit, see CS 200 482.) (See CS 200 484-499 for related documents.) (HS)

FILMED FROM BEST AVAILABLE COPY

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY

ED 075825

Language Curriculum, Level D

Unit II

COMMUNICATION SYSTEMS

Developed under contract with the
United States Office of Education
Department of Health, Education, and Welfare

by

The Oregon Elementary English Project
University of Oregon
Eugene, Oregon
1971

CS 200 483

Unit II
Communication Systems

TABLE OF CONTENTS

		Page Number
	Teacher Introduction	1
Lesson 1	Agreeing on Signals	4
Lesson 2	Gestures and Meaning	6
Lesson 3	Signs and Symbols	8
Lesson 4	Some Communication Systems	10
Lesson 5	We Communicate With Words	13
Lesson 6	The Human Language System	15
Lesson 7	An Unlimited System	17
Lesson 8	What We Can Do With Language	19

Unit II

COMMUNICATION SYSTEMS
(eight lessons)

CHECKLIST OF MATERIALS NEEDED:

1. Material to hand out to students for lessons 1, and 3-8, filed in separate folders.
2. Chart of signals used by scuba divers, to be put on a transparency for the overhead or otherwise reproduced for lesson 2. There is a copy in the Supplementary Material envelope.
3. Old magazines and telephone directories and material with which to make a mural for lesson 3.
4. Optional for lesson 4:
   a railroad signal, copy in Supplementary Material
   a football
   props for doing a TV program such as a mike, something to use for a camera, and things necessary for the program
5. Drawing paper for lesson 5.
6. Flexibility.

PURPOSE: To acquaint students with the following concepts:

1. Communication systems make use of signs or symbols to which meaning is attached.
2. The parts in a communication system go together in a systematic rather than a haphazard way.
3. Those who use a communication system must understand the meaning attached to the signs or symbols and how they are used together.
4. Many communication systems are limited.
5. Human language is a communication system; it is an unlimited system.

WHAT YOU SHOULD KNOW TO TEACH THE UNIT:

Communication implies passing of a message from one living creature to another. This is normally accomplished by means of signs or symbols to which meaning is attached by those who use them. Sometimes the signals are tactile (dependent on touch and the sense of feel); some are visual, some are auditory. All living creatures have some means of communicating with others of their own species. Even the simplest one-cell creatures make contact by certain tactile signals which indicate their presence to each other.

As we proceed upward in the scale, we find communication systems of increasing complexity. In some systems a single signal is related to a single meaning. For example, to a bear, scratches on the bark of a tree means "another bear is here." In other systems the signals are used in combinations. For example, dance steps and direction are combined in the bee system to convey various messages. In some systems the way that the signals are combined makes an unlimited number of messages possible. That is, the signals can be combined and recombined and used over and over. This is especially true of human language, where we combine sounds to porduce words and combine words to produce an unlimited number of sentences. The individual sounds have no meaning in themselves. We attach meaning to combinations of sounds.

In addition to the characteristic of being unlimited in its possibilities, human language is characterized by the kinds of messages that can be communicated. Unlike other creatures, humans can use language to communicate about past and future as well as present. They can use language at will without any external stimulus from anything at hand. With language, humans can do things other creatures can't.

Of course, man has other means of communicating besides human language, such as gestures and facial expressions. And man has worked out a number of small communication systems to convey certain messages. For example, the smoke signals and the trail signs of Indians represent communication systems. Various activities require their own systems. Railroad workers communicate by signals made by flashing lights or lanterns, or by a combination of whistle toots. Often these man-made systems are devised to convey messages when it is not possible to communicate by means of language, but the messages they produce are usually translated into human language terms.

A system implies parts that go together in an orderly and predictable way. In order to convey a message about the whereabouts of nectar, bees must use a specific number of dance steps, and must proceed in a specific direction. In order to use the words of our language to communicate we must put them together in a specific way that is understood by all the users of the language. To use the system, the users must have a common understanding of the meaning of the signals and of the patterns in which they are put together.

RESUMÉ:

This unit begins with a lesson which reinforces the concept that in order to communicate we must all have the same meaning for the signals used. The first three lessons deal with various kinds of signals that are used by humans to communicate with. Lesson 4 is concerned with what is meant by a communication system. Lesson 5 focuses on human language and the fact that the signals used in this system are words. The systematic nature of human language is emphasized in Lesson 6. Lesson 7 shows that human language is an unlimited system with which we can do things we can't do with other communication systems. Lesson 8 is a review and summing-up lesson that points up various characteristics of human language.

TEACHING THE UNIT:

This unit has been designed to be used by fourth graders who have studied a similar unit in Grade 3. But it can also be used by fourth graders who have not studied that unit.

We suggest that this unit be taught soon after Unit 1. In that unit students became aware of what it means to communicate and of the fact that all living creatures, including human, have a means of communicating. They became aware of some of the different kinds of signals that are used and of the fact that the signals must be understood by those who use them. This unit concentrates on communication systems in general and especially on human language and its possibilities.

It is not necessary to teach the unit straight through. It is quite possible to work on lessons from other units simultaneously with this one. For example, lesson 1 from the unit on WORDS would work very well with lesson 5, "We Communicate with Words." Some of the early lessons in Unit 3 would quite logically follow Lesson 7, "An Unlimited System."

You might find it useful to look at the corresponding unit in Language 3 and perhaps to use some of the material developed there.

BIBLIOGRAPHY: (student level)

Alexander, Arthur. The Magic of Words. Prentice-Hall, Inc., Englewood Cliffs, New Jersey, 1962.

Andrews, F. Emerson. Numbers, Please. Little, Brown & Co., Boston, 1961.

Bendick, Jeanne and Marcia Levin. Take A Number. Whittlesey House, McGraw-Hill, New York, 1961.

Epstein, Beryl and Sam Epstein. First Book of Words. Franklin Watts, Inc., New York, 1954.

Frasconi, Antonio. See Again Say Again. Harcourt, Brace & Co., New York, 1955.

Hautzig, Esther. At Home, A Visit in Four Languages. The Macmillan Co., New York, 1968.

Lauber, Patricia. The Story of Numbers. Random House, New York, 1969.

Rogers, James T. The Pantheon Story of Mathematics for Young People. Pantheon Books, New York, 1966.

AGREEING ON SIGNALS

PURPOSE: To help students discover that we communicate by means of signals to which meaning is attached.

MATERIAL: Student lesson, "Agreeing on Signals," to be handed out to each student.

SUGGESTED PROCEDURE:

1. If you have taught the unit on "Animal Communication" earlier, help students recall that different animals use different means of communicating. Some use signals that can be seen; others use signals that can be heard; etc.

2. Hand out the student lesson and read it with them, stopping to discuss the questions in the text. Help students to see that George couldn't communicate with Barry and Chuck because he didn't know what the signals meant.

3. In discussing the signals used by the Indians, here are some questions you might ask:

   What kind of singals were the fire and smoke signals? (Visual.)

   Who could use these signals to communicate? (People for whom they had the same meaning.)

   Let students try to decide what the two arm gestures might have meant. The actual meaning isn't as important as their understanding that to communicate with the gestures the Indians had to agree on what they meant.

4. When you come to section 3, divide your class into small groups. Read the directions with them and give them time to work out their set of signals. Then have each group try to explain what the signals meant. If they can't, discuss the reasons and bring out the fact that to use the signals, people must agree on what they mean. Then let each group explain what its signals meant.

5. After each group has presented its act, have students try to fill in the blanks in the two statements at the end of the lesson. (Signals and agree are the answers you are looking for.)

POSSIBLE EXTENSION:

1. As a class, work out a communication system. You could have students first work in pairs or small groups to decide upon some signals and then pool their suggestions. Use the system at various times within your classroom until students are familiar with it to reinforce the concept that we can communicate with signals of various kinds if those who use them know what they mean.

   A variation would be to have small groups make up their own systems and use them among themselves. The other groups could try to break the "code."

2. You might let students work out a game using the trail signs. One group could go ahead and leave signs. Another group could try to follow it.

3. Have students write a story about what the Indian with arm outstretched and the Indian with folded arms were saying to each other. They should include the situation which led to the use of these gestures and explain what the gestures meant.

AGREEING ON SIGNALS

1. Barry and Chuck made up a set of secret words. One was BLIX. They agreed that it would mean, "See you at six." Their secret words were signals which they used to communicate with each other.

Barry and Chuck also made up some hand signals or gestures which they used to communicate with each other. When they held up a hand with fingers stretched out, it meant, "Call me at five."

Their friend George didn't know what the secret words and gestures meant.

Could George understand Barry and Chuck? Why?

Could he use their words and gestures to communicate? Why?

2. People have found many ways to communicate. The American Indians used fire and smoke signals. They built fires of dry sticks on hill tops. The Indians agreed on what the signals would mean.

meant, "The camp is here."

meant, "Come to the council."

meant, "Danger!" or "Help!"

Indians also used gestures to communicate with. Here are two:

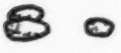
What do you think these gestures might mean?

Who could use them?

Indians also used trail signs. Here are some that they used:

Three rocks piled up meant danger.

Two rocks meant, "You are on the right path."



Two rocks plus a rock to the right meant, "Go to the right."

Two rocks plus a rock to the left meant, "Go to the left."

A twig sticking a long way out of a forked stick meant, "Go a long way in this direction."

A twig sticking a short way out meant, "You are almost there."

3. Working in small groups, think of some messages you would like to send if you were Indians. Do the following things:

a. Decide upon your signals.

b. Agree upon what the signals mean.

c. Act out a scene for your classmates, using only your signals. Don't use words.

d. Find out if your classmates can understand you.

e. If they can't, explain what your signals mean.

f. When you are through, see if you can fill in the following blanks:

1. People use different kinds of _____ to communicate with.

2. People who communicate must _____ on what the signals mean.

GESTURES AND MEANING

PURPOSE: To teach students that we attach meaning to different kinds of body movements (gestures) and use them to communicate with.

MATERIALS: Transparency of signals used by scuba divers, to be used on the overhead or reproduced in some other way. Copy in Supplementary Material envelope.

SUGGESTED PROCEDURE:

1. You might begin by asking your students to do the following things without saying a word.

   Show that you are very happy.
   Tell someone to go away.
   Tell someone you don't know the answer to a question.
   Ask someone to come closer.

   Students should automatically respond with the appropriate gesture or facial expression: a smile, a hand movement, a shrug, a beckoning with the hand or finger. Explain that the fact they all used the same gestures shows that we can use these gestures because we all know what they mean. We agree on their meaning.

2. Pass out the student lesson and either read part 1 to your students or have them read it, taking time to discuss the questions under the pictures. Ask such questions as:

   How do you think the TV actor knew what the director was saying? (After discussion, you might tell students that the sginal means "Your time is up.")

   How can one frogman understand another? (They know the meaning of the signals.)

   Why can't you understand the messages of the TV director, the frogman, and the usher?

   How could you learn to understand their messages? (Learn the meaning of the signals.)

3. Before going on to part 2, show the transparency of the signals used by the scuba divers. You might want to let students choose partners and practice giving signals to each other.

4. Continue the lesson by reading part 2 or having a student read it. Discuss the meaning of the pictures at the bottom of the page. Students will probably agree as to the meaning, giving you an opportunity to emphasize we can use these signals because we agree on their meaning.

5. There are several possibilities for the first activities suggested in part 3.

    a. You might use numbers. That is, when you say 1, all the students will show you a gesture. When you say 2 they will show you another.

    b. Or you might let students take turns pantomiming a gesture and having the other students interpret it.

    c. Or you might divide the class into groups and have each group think of as many gestures as they can in a fixed time (five minutes), and then have the groups share their gestures with the class. This would lead into the second activity. You could list the various messages which they are pantomiming on the board.

    Note: Be sure students understand what pantomime means.

6. Continue with activity 2, having students think of as many gestures and facial expressions as they can. Have some of your own to help them out. You might keep the list posted and have students add to it when they discover other gestures or facial expressions. Emphasize that the reason we can communicate with these gestures is that we all agree as to their meaning.

POSSIBLE EXTENSIONS:

1. You might let students share the signals of the scuba divers with other classes. Suggest that they go through the signals first to prove to the other classes that they can't understand if they don't know the meaning of the signals. Then they could explain what they mean. This would take some planning ahead of time.

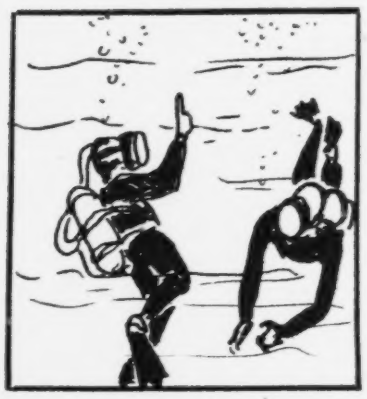
2. Have students become "people watchers" and keep a list of things they can learn by watching people's gestures and facial expressions.

GESTURES AND MEANING

1. This TV director is drawing his finger across his throat. He has a message for the man in front of the camera.

Do you know what he is saying?

These are frogmen who work under water. They are signaling to each other.



Do you understand their message?

This is an usher in a theater. She is telling another about where there are some vacant seats.

Do you understand her message?

2. People all over the world use facial expressions and body movements that have meaning. They are called gestures. There may be over 7,000 different gestures which people use. Of course you do not know all of these gestures, but you know many of them and probably use them. What do these pictures say to you?

3. Things to do with gestures:
   1. Pantomime as many gestures and facial expressions as you can which have meaning for you, such as a shrug or a wave, a frown or a smile.
   2. Make a class list of what you can say with gestures and facial expressions without saying a word.

Words for your word bank:

SIGNS AND SYMBOLS

PURPOSE:

1. To reinforce the concept that we use signs to communicate with, and
2. To introduce the concept that when signs have no necessary relation to the thing they stand for they are often called symbols.

MATERIAL: Student lesson, "Signs and Symbols," to pass out to each student.

Materials to make a mural.

Old magazines and telephone directories.

SUGGESTED PROCEDURE:

1. Remind students of some of the Indian signs which were discussed in Lesson 1. Ask

   Which of these signs had clues that might tell us their meaning? (The rock to the right of another rock meant to go right. The rock to the left of two rocks meant go left.)

   Were there some signs that had no clues? (Three rocks piled up.)

   How could people use them to communicate with? (They have to agree on the meaning.)

   Could we make up some other signs that might mean danger? (Try to get students to see that the sign doesn't have to have any connection with its meaning until people agree to give it a special meaning.)

2. Hand out the student lesson. Read it with your class and stop to discuss the questions. Emphasize that the signs communicate to us because we all agree on their meaning. Ask

   Which of the signs have clues to what they stand for? Which don't? (The traffic lights have no clues. Red has come to stand for stop but it has no natural relation to that meaning. On the other hand, the signs for the gas stations do have clues. The shell sign stands for Shell Gas. Don't spend too long on this distinction. This should be only an introduction to the concept. The important thing to stress is that the signs have meaning for us and therefore can be used to communicate.)

3. Continue with part 2, stopping to discuss the questions. Then introduce the word symbol as meaning a sign that comes to have special meaning for people but has no natural connection with the thing it stands for. Again, don't labor the point. Just introduce it.

4. Read the instructions in part 3 with your students. There are several possibilities for carrying out these activities:

    a. You might provide magazines and old telephone directories and let students look through them for pictures of signs and symbols. Students could work in groups and you could have the class pool what they find and combine them in a list.

    b. You could make this an assignment to work on outside of class, asking students to watch as they go home from school or drive around town with their parents for signs and symbols that show what stores and shops are selling. You could then have them share what they find and add their items to the list.

    c. After students have collected a number of signs and symbols let them prepare a mural showing as many signs and symbols as possible. Students could work in groups, each one preparing a section of the mural.

POSSIBLE EXTENSION:

Have students prepare a bulletin board headed "Signs and Symbols" on which they mount pictures of various signs and symbols which they have collected.

SIGNS AND SYMBOLS

1. You are out driving with your family. At a corner Dad sees The light is yellow.

What does he do?

When the light turns he stops.

Then the light turns green. What does he do?

What message do the lights give Dad?

How do they do it?

Soon you come to an intersection. There are some tall signs like these on each of the corners.

Dad pulls into a station under one of the signs to get some gas. None of the signs use the word "gas." How does Dad know he can get his car filled with gas?

2. Years ago many of the pioneer people could not read. Some of them had come from foreign countries and could not read English. Storekeepers put signs outside their stores to tell people what kind of store it was. Cigar stores had big statues of an Indian. The Indian became a sign for a cigar store. It was called the cigar store Indian.

Here is another famous sign--a pole with red and white stripes. We still see it outside of certain shops.

What does it tell us?

How do people know what it means?

When signs come to have a special meaning just for the people who use them they are called symbols. A symbol doesn't look like what it stands for. It has meaning only for the people who know what it stands for. People use signs and symbols to communicate.

3. Here are some things for you to do.
   1. Think of some signs and symbols that we see in stores and on the street today. Make a list of them.
   2. With your class, draw a mural of signs and symbols that are used in your community.

A word for your word bank:

SOME COMMUNICATION SYSTEMS

PURPOSE: To develop some understanding of what is meant by a communication system.

MATERIAL: Student lesson, "Some Communication Systems," to hand out to each student.

Optional, depending on how you choose to develop the lesson:

a. A large black circle with three smaller yellow circles on it to use in practicing with the railroad system. You might want to let each student make one of his own, in which case you will need construction paper. There is a sample in Supplementary Materials.
b. A football.
c. Props for doing a TV commercial or program: a mike, something to use for a camera, items to demonstrate or talk about.

SUGGESTED PROCEDURE:

Note: It should not be necessary to use all three of the systems if your time is limited. By knowing the interests of your class you will be able to make an appropriate choice. You may want to use all three and spread the lesson over two or three days; or you may wish to assign different systems to different students and work separately with each group. Whatever way you handle it, try to help students arrive at the following generalizations about communication systems:

a. They make use of symbols which have meaning.
b. Both the sender and receiver must know the system in order to communicate.
c. The parts of the system go together in an orderly way.
d. Some systems are limited.

The following are suggestions for teaching each of the three systems:

1. Have students look at the railroad signals, making sure that they understand what each means. Help them to see that the same kind of signal is used in each (three lights) but that different messages are produced by the direction in which they appear. Use the following questions to guide the discussion:

   a. If you were the signal man, what could you say to the engineer? (Just the four messages.)

   b. What could he say to you? (Same thing.)

c. If the electricity were cut off suddenly, can you think of a way to use the system? (Perhaps the signals could be reproduced some other way.)

d. Could you use this system to tell the engineer you have a broken arm? Why or why not? (No. There are only a limited number of messages that can be produced by this system.)

e. Could the engineer tell you that he is sorry you have a broken arm? Why or why not? (Same reason.)

Let students become familiar with how the system works by using the signal in the Supplementary Materials to play a game. Have students line up. Then give them various signals. They are to respond by doing what the signal says: stopping, approaching, coming into a restricted area, or proceeding ahead at full speed. Those that make a mistake must sit down. The object might be to see who could stay up longest.

As an alternative you might have students make their own signals and work in groups or pairs, giving the signals to each other.

2. You might want to use the football system just with the boys. After they understand what the signals mean, ask:

a. Who besides the referee might want or need to know this communication system? (The players, the reporters and announcers in the stands, the officials keeping a score on the game, even people just watching the game.)

b. Are there any signals that might be used together to give a message? (1, 2, and 4; 6 and 7.)

c. Look at signals 1 and 3. Would they be used together? Why or why not? (No. They contradict each other.)

d. What are some other signals that would not be used together? (7 and 4.)

e. Could a baseball umpire use this communication system? Why or why not? (No, they wouldn't fit the game.)

f. Could a blind person use this system? Why or why not? (No. The system depends on being albe to see the signals.)

3. After students have had a chance to look at the different gestures used by TV directors, ask:

    a. What would you be saying if you used gestures 1, 2, 5, 6, 7, and 3 in that order?

    b. Do you think a director would ever use the gestures in a 4, 5, 2, 1 order? Why or why not? (No. There is a logical sequence to follow.)

    c. What are some things the director can't say to the cameraman or performers?

    Divide students into groups and have them plan a television show. Have one person be the cameraman and one the director. The others should be performers or announcers. The director is to use the signals in the system, and the others are to follow his direction. Let each group present its show.

4. At the end of the lesson discuss the following questions with the whole group:

    a. Can you think of a system where you can say almost anything you want to say?

    b. Do you know of a communication system that can do more than give one signal at a time?

    c. What system do you, the railroad conductor, the football officials, and the TV crew all use and understand?

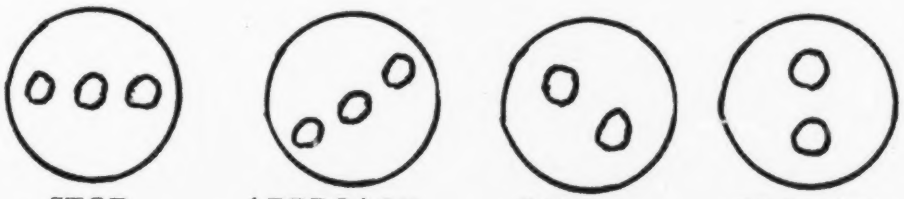
    (The answer to each of these questions is, of course, human language.)

Communication Systems
Lesson 4
Student

Language D

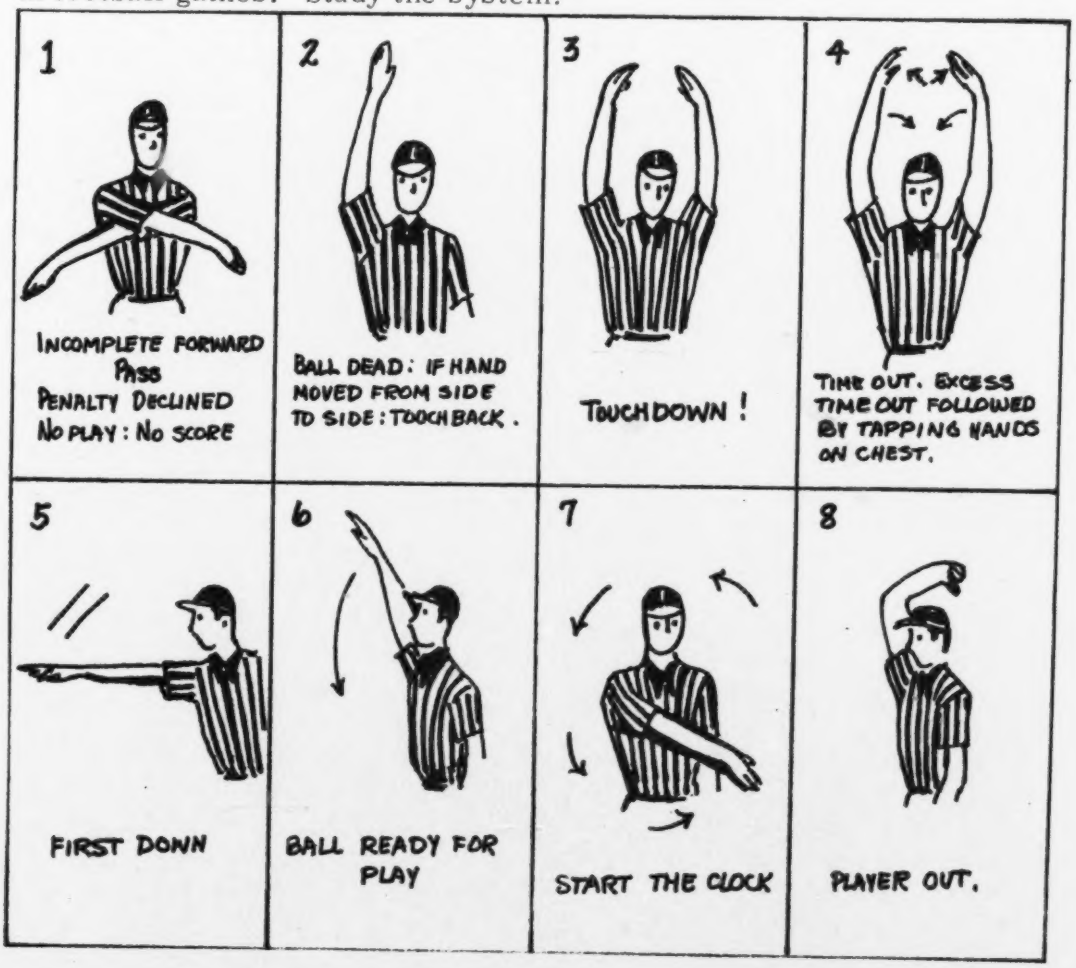
SOME COMMUNICATION SYSTEMS

1. A set of signals used together to communicate with is called a communication system. Here is part of a communication system used by railroad people. They use it to communicate with engineers on trains. Study it so that you and the engineer can communicate.

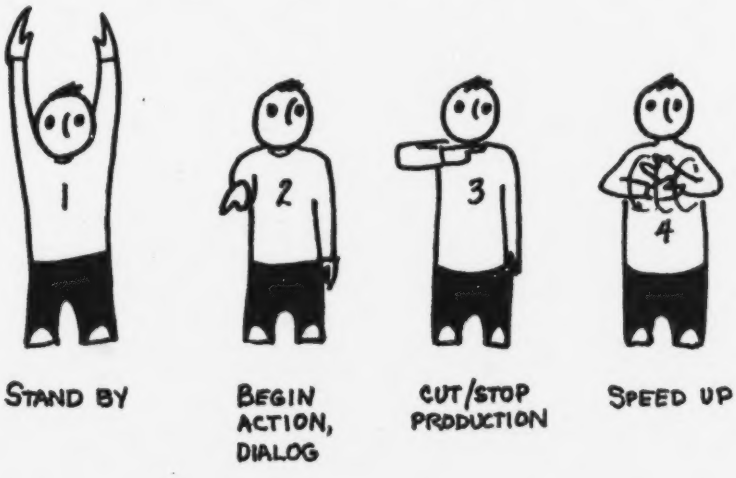


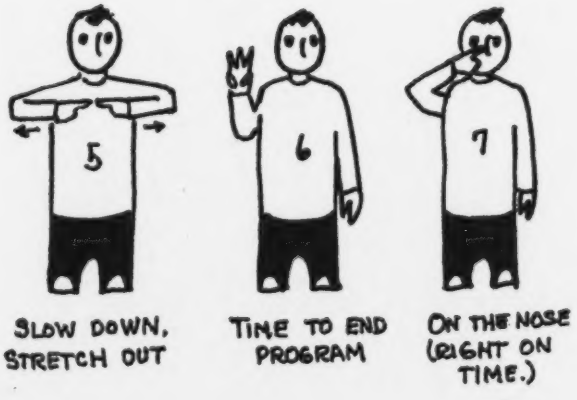
STOP APPROACH ENTER PROCEED

2. Here is part of the communication system used by referees in football games. Study the system.



3. Here is part of a television crew's communication system. Study it so that you can play the role of actor, cameraman, or director.





WE COMMUNICATE WITH WORDS

PURPOSE: To help students discover that human language is a communication system that uses words.

MATERIAL: Paper for students to draw pictures on.

Student lesson, "We Communicate with Words," for each student.

SUGGESTED PROCEDURE:

1. Remind students that they have been learning about communication systems. Ask what some of these systems have been.

2. Pass out paper for drawing pictures and give students the following instructions:

   a. Draw three kinds of fruit.

   b. Now draw seven other objects.

   c. Now make a separate list of words that name the objects you have drawn.

   Have students exchange their sets of drawings and label with another student who will try to match the labels with the pictures. When they have finished have them compare their matched sets with those of still another pair of students to see if they agree.

3. After students have had a chance to match labels and pictures and compared their answers with those of another pair of students, use the following questions as a guide to discussion:

   a. Did you know what the pictures were of?

   b. Did you know which picture went with each label? How? (We know what the words mean.)

   c. Did the labels mean the same thing to others in the class as they did to you? If so, why? (We all know the same meaning for the words.)

   d. Would we need the pictures to tell us what the words mean? (To help students with this answer suggest some words without pictures and have them show that they know what the words mean.

   e. What do we use words for? (To communicate.)

The purpose of these questions is to help students see that we use words to communicate with. This is the first step in thinking about human language as a communication system. The symbols used in this system are words.

4. Pass out (perhaps on the second day) the student lesson. Depending on their reading ability, students can work either individually or in pairs. Or you can read the whole lesson with the group, stopping to let them fill in the blanks and draw the pictures. Both parts 1 and 2 reinforce the concept that words are part of our communication system.

   For part 2, put the following chart on the board and have students put the words they use in one column and the others in the second column. When all the words have been entered, explain that both words in each pair mean the same thing but belong to different human languages. This will reinforce the concept that the symbol has meaning only for the people who use it. Students who have been in elementary foreign language programs may know the meaning of some of the foreign words. You might encourage them to add to the list.

Words in our language	Words in another language
cat	gato (Spanish)
man	hito (Japanese)
good	bon (French)
dog	sobaka (Russian)
sun	sol (Spanish)

   Part 3 serves to reinforce and review what students have learned about different communication systems including human language. (The answers are a) railroad, b) gestures, c) bees, d) marks, e) facial, f) humans.)

WE COMMUNICATE WITH WORDS

1. You probably cannot remember when you first learned to use words to communicate. But you have been at it a long time. By now you know so many words for so many things that you don't even have to think about them when you use them.

When you see a you say _____.

When you see a you say _____.

And when you hear the word "book" you think of a

Words are part of your _____ system.

2. Which word in each of the following pairs is part of your communication system?

cat	gato
man	hito
bon	good
sobaka	dog
sun	sol

3. Different communication systems use different kinds of signals or symbols.

a. The _____ system uses light signals.

b. TV directors and scuba divers use _____.

c. _____use dance steps.

d. Bears use _____ on a tree.

e. Monkeys use _____ expressions.

f. _____ use words.

THE HUMAN LANGUAGE SYSTEM

PURPOSE: To reinforce the concept that human language is a communication system in which parts are put together in a certain way.

MATERIAL: Pictures from magazines and papers depicting some kind of action which students can explain. The number will depend on how you choose to develop the lesson. See below.

Student lesson, "The Human Language System," for each student.

SUGGESTED PROCEDURE:

1. Begin by asking students what it is they use every day to communicate with. (Words.) Then ask if we use words separately or do we put them together.

2. Pass out pictures to each child (or have each child bring a picture from home that he would like to explain), and divide the class into pairs. Let each child explain his picture to his partner.

   or

   Have several large pictures to show to the class as a whole. Ask different children to explain what is happening in the pictures.

   After each explanation ask questions such as:

   Can you understand what is being said?

   What communication system are we using to explain the pictures? (Human language.)

   How can we all understand it? (We all know the same system.)

   Emphasize in the discussion three things: (1) Language is a communication system that uses words; (2) We know how to put the words together in order to communicate; (3) It is a system we all know.

3. Pass out the student lesson which should be used to reinforce the concepts developed in the class discussion. Students may work in pairs or individually. Have a follow-up discussion to share answers. In part 4 put some of the sets of words (which will probably all be sentences) on the board to illustrate how many ways we can use words and how we can do it without thinking much about it.

THE HUMAN LANGUAGE SYSTEM

When we communicate with words we put them together to say many things. You probably cannot remember when you first began to put words together. Out of all the words that you know, you can choose the set of words you need in order to say whatever you want to say.

1. Here is a set of words:

sun
shines
the
brightly

Put the words together to say something _____.

In the square above, draw a picture that will show the same things the words do.

2. Choose a set of words to say what this picture tells you.

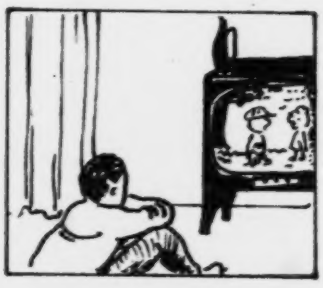
_____

3. Put the words in each of the following sets together to fit one of the pictures.

television
is
boy
the
watching

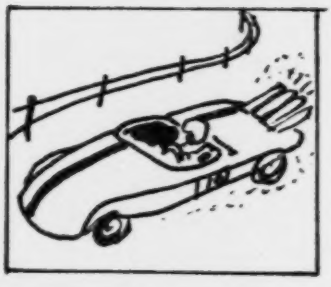
_____

a
in
racing
boy
the
car
is



_____

running
black
the
white
is
dog
and



_____

Draw lines from your words to the pictures they fit.

4. Put some other set of words together to communicate other messages about these pictures.

AN UNLIMITED SYSTEM

PURPOSE: To introduce the concept that human language is an unlimited system.

MATERIAL: Student lesson, "An Unlimited System," for each student.

SUGGESTED PROCEDURE:

1. Begin by reminding students of some of the communication systems they have talked about and what they can do.

2. Pass out slips of paper to four students with one of the following statements on each of the slips. Tell them not to tell anyone what is on the slip.

   I was too warm yesterday.
   My cat was lost last week.
   I wish I could go to the game tonight.
   Tomorrow should be beautiful.

   Note: You could have more slips with other messages that can be communicated only with words.

   Have the students take turns trying to tell the rest of the class what the messages are "without saying a word."

   Then ask students:

   What kind of a system do you need to have in order to communicate these things?

   What are some things we can do with human language that we can't do with other communication systems? (Among answers students might suggest are messages about what has happened in the past or may happen in the future; messages about things we can't see or about things that are far away.) You might want to list some of the answers on the board.

3. Pass out student lesson and work through it with your students, stopping to discuss the questions as you come to them. Parts 1 and 2 are designed to help students understand the difference between that which is limited and that which isn't. The unlimited items are space, the number system, and time. Have a student put the chart on the board and fill it in as the rest of the class instructs him.

4. Part 3 of the student lesson provides for reviewing and reinforcing what students have learned about communication systems. Pool the suggestions of students in part 4 and put them on the board. At the end, ask:

   Can you think of anything you can't say with human language? (It may take some time for students to really understand that language is unlimited. Accept whatever they say, but make them defend their answers. Whatever they tell you about is obviously something that can be said with language.)

   Is language a limited or an unlimited system? (Again this is a concept that will need to be reinforced many times. The fact that they can do things with language that can be done with no other system should help them grasp the concept. You should watch for opportunities to reinforce the idea.)

POSSIBLE EXTENSION:

Have students read the nursery story "This Is the House That Jack Built." You might have it on the board. Then suggest that students write their own version of the story, substituting wherever possible, or adding other sentences. You could have the additions put on the board and leave the story there for further additions whenever students think of something. This should demonstrate to them something of the unlimited possibilities of human language.

This is the house that Jack built.
This is the malt that lay in the house that Jack built.
This is the rat that ate the malt that lay in the house that Jack built.
This is the cat that killed the rat that ate the malt that lay in the house that Jack built.
etc.

For example, they might substitute cheese for malt; mouse for rat; weasel for cat, etc. Or they might add on at the end with other accumulative sentences, such as "This is the boy that fed the cock that crowed in the morn that woke the priest all tattered and torn that married the maid that milked the cow with the crumpled horn that tossed the dog that worried the cat that killed the rat that ate the malt that lay in the house that Jack built."

Students could work on this project individually, in pairs, or in groups.

Communication Systems
Lesson 7
Student

Language D

AN UNLIMITED SYSTEM

1. What time do you have to go to bed?

Is there a limit to how long you can stay up at night?

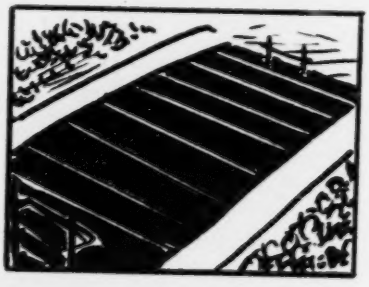
How many pieces of pie can you eat?

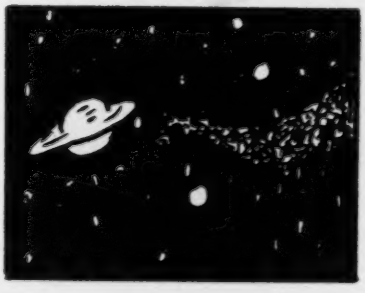
Is there a limit to how much pie you can eat?

How large is a football field?

How large is a baseball diamond?

Are they limited to a certain size?



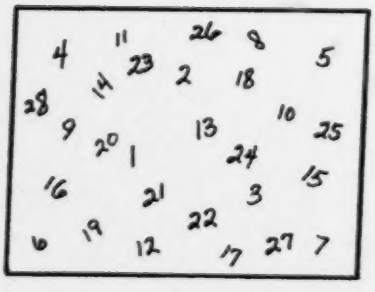


How far out is space?

Is it limited or unlimited?

How high can you count?

Is our number system limited or unlimited?



2. Look at the following list. Make a chart like the one below and put each of the items either in the limited column or in the unlimited column.

twelve-inch ruler	baseball diamond
space	time
yardstick	a highway
number system	pie

limited	unlimited

Think of some other things to add to each column.

3. There are many ways to communicate, and many communication systems.

Which of the following can the railroad signal man tell the engineer with railroad signals?

a. STOP AND THEN PROCEED.
b. IT WILL RAIN TOMORROW.

Which of the following can the TV director tell the announcer with gestures?

a. GEORGE WAS LATE AGAIN TODAY.
b. YOU HAVE FIVE MINUTES MORE.

Which of the following can you tell someone with a facial expression?

a. I'M UNHAPPY.
b. I'LL HAVE A PEANUT BUTTER SANDWICH FOR LUNCH.

Which of the following can you say with a gesture?

a. COME TO MY PARTY NEXT WEEK.
b. COME HERE.

4. List as many messages as you can that can't be communicated with gestures.

Which of these messages can be communicated with language?

5. Can you think of anything you can't say with human language?

Is language a limited or an unlimited communication system?

WHAT WE CAN DO WITH LANGUAGE

PURPOSE: To draw together and reinforce the concepts that have been developed about language as a communication system.

MATERIAL: Student lesson, "What We Can Do with Language."

SUGGESTED PROCEDURE:

1. Pass out the lesson and read the introductory paragraph with your students. You might stop to ask for examples of each of the concepts.

2. Read the directions for the first game and then have students "play" it individually. Follow up with a discussion to compare answers. Students may want to add other examples to the sets following the discussion of the answers.

   A goes with 1
   B with 5
   C with 4
   D with 3
   E with 2

3. Read the directions for the "spare time" game to make sure students understand how it is to be played. Then let them work individually during the day.

   On the following day, have time for reporting on how many words they were able to substitute in each of the sentences. Let students take turns reading their most amusing sentences.

   Discuss the question:

   Do you think you would ever be able to finish this game if you had lots of spare time? Why or why not? (Answers will probably vary. Use it to help students see the unlimited possibilities of language. This game will provide background experience for activities in Unit 3.)

POSSIBLE EXTENSION:

Have students select a topic, such as a farm, a family, a boat, a pet, cars, or ballgames, and write down everything they can think of about it. When they have finished, have them count their words to see how many they were able to use.

This exercise might work well as a team or small group competition. As the class shares the results of their efforts, an appreciation of our language system should emerge with little or no effort. This will probably be an intuitive feeling rather than something they can verbalize, but it should support the fact that our language system is unlimited.

Communication Systems
Lesson 8
Student

Language D

WHAT WE CAN DO WITH LANGUAGE

We know many things about our communication system.
We know that it uses words.
We know that we can put words together to say many things.
We know that we call our communication system LANGUAGE.
We know that we can communicate more with language than we can with other systems.

1. Here is a language game for you to play.
Rules of the game:
Match the sets of sentences in Column I with the sentences about language in Column II.

Column I (Things we can say with language)	Column II (What we know about our language system)
A. The cook will cook dinner. The police will police the game. The rake will rake the leaves.	1. We can use a word in several different ways.
B. We may go to the ball game. May we go to the ball game?	2. Our system lets us communicate about the past, the future, and right now.
C. The big bear saw a beautiful bird. The beautiful bird saw a big bear. The beautiful bear saw a big bird.	3. Our system lets us tell about our thoughts, wishes, and feelings.
D. I wish I could fly like a bird. I think blue is my favorite color. I want to go with you.	4. In our language system, we can make different messages with the same set of words.
E. Tomorrow will be beautiful. I lost my lunch ticket yesterday. Let me have it right now.	5. With our language system, we can ask something or tell something.

2. Here is a spare-time game for you to play for the rest of the day. See how many words you can think of that could take the place of the underlined word.

A. The Grinch stole Christmas.	B. The boy ran.	C. We went to see a show.	D. The yellow cat yawned.
example: brownie	example: cried	example: pony	example: big
1.	1.	1.	1.
2.	2.	2.	2.
3.	3.	3.	3.
4.	4.	4.	4.